

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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U.S. PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YUTAKA NAGAI
and TOSHIFUMI TAKEUCHI

Appeal No. 2004-1335
Application 09/712,970¹

HEARD: January 27, 2005

Before BARRETT, BARRY, and BLANKENSHIP, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1-14.

We affirm.

¹ Application for patent filed November 16, 2000, entitled "Reproduction Apparatus and Reproduction Method of Digital Video Signal or Audio Signal," which is a continuation of Application 09/290,251, filed April 13, 1999, now pending, which claims the foreign filing priority benefit under 35 U.S.C. § 119 of Japanese Application 10-102385, filed April 14, 1998.

BACKGROUND

The disclosed invention relates to an apparatus and method for preventing reproduction of a pirated audio or video signal as described at pages 2-3 of appellants' brief.

Claim 1 is reproduced below.

1. A reproduction apparatus for reproducing video data and/or audio data from a medium dedicated to reproduction and/or a recordable medium having video data and/or audio data recorded thereon, the video data and/or audio data being generated by superimposing information concerning copying consent on a digitized video signal or audio signal which has undergone addition of an error correction code for error correction and then been modulated in accordance with a modulation rule adapted for the recording medium, the reproduction apparatus comprising:

demodulating means for demodulating data modulated in accordance with the modulation rule;

temporal store means for storing the data demodulated by the demodulating means;

error-correcting means for error-correcting the demodulated data stored in the temporal store means based on the error correction code, the error-corrected data being stored in the temporal store means;

reproducing means for reproducing the superimposed information concerning copying consent from the error-corrected data processed by the error-correcting means and stored in the temporal store means; and

output control means for performing output control of the error-corrected data based on the reproduced information concerning copying consent stored in the temporal store means;

wherein the output control means stops outputting the error-corrected data if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the reproduced information concerning copying consent stored in the temporal store means indicates that copying once was permitted.

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THE REFERENCES

The examiner relies on the following references:

Suzuki et al. (Suzuki)	5,699,474	December 16, 1997
Linnartz	6,209,092	March 27, 2001
		(filed January 27, 1998)

THE REJECTIONS

Claims 1, 7, 13, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Linnartz and Suzuki.

Claims 2-6 and 8-12 stand rejected under § 103(a) as unpatentable over Linnartz and Suzuki, further in view of Official Notice.

We refer to the final rejection (Paper No. 6) (pages referred to as "FR__") and the examiner's answer (Paper No. 9) for a statement of the examiner's rejection, and to the brief (Paper No. 8) (pages referred to as "Br__") and reply brief (Paper No. 10) (pages referred to as "RBr__") for a statement of appellants' arguments thereagainst.

OPINION

Claims 1, 7, 13, and 14

The examiner finds that Linnartz teaches the claimed invention except for demodulating data modulated in accordance with a modulation rule, storing demodulated data in a temporal store, and error-correcting the demodulated data in the temporal store based on the error correction code, but finds that Suzuki

teaches these limitations and concludes that it would have been obvious to modify Linnartz to include these limitations (FR3-4; EA5-6). In particular, the examiner finds that the limitation in claim 1, "wherein the output control means stops outputting the error-corrected data if both (1) the error-corrected data was reproduced from the medium dedicated to reproduction and (2) the reproduced information concerning copying consent stored in the temporal store means indicates that copying once was permitted," is taught at column 3, lines 17-67, column 4, line 58, through column 5, line 2, and column 6, lines 22-45 (FR3; EA5).

Appellants argue that these portions of Linnartz fail to disclose the stopping of outputting of data when both conditions (1) and (2), as recited in the claims, are detected (Br8). It is argued that Suzuki is not directed to the problem of illegal or pirated copying and since Suzuki has a publication date several years before the priority date of Linnartz, Linnartz did not consider the techniques of Suzuki necessary (Br11-12).

Limitation (2)

In limitation (2), "once" can be defined as "one time and no more" and as "at some indefinite time in the past." Webster's New Collegiate Dictionary (G. & C. Merriam Co. 1977). Thus, "copying once was permitted" can be interpreted as "copying was permitted one time and no more," the interpretation intended by appellants from the specification, or "copying was permitted at

some indefinite time in the past." Both interpretations are equally possible. We use the interpretation that "copying was permitted at some indefinite time in the past." See In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("[D]uring patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.").

The examiner states that "copying is not permitted, and the outputting of data is stopped, if the reproduced information concerning copying consent indicates that copying once was permitted, but is no longer permitted, as set forth by Linnartz (column 3, lines 17-67; column 4, line 58, through column 5, line 2; column 6, lines 22-45)" (EA14). Appellants argue that "in accordance with Linnartz, only after copying consent is no longer present, as in the case that more than the number of permitted copies have been made, is reproduction stopped" (Br8). The argument is clearer in the reply brief where appellants argue that "when permission for copying is not permitted, appellants submit that Linnartz fails to provide an indication that copying once was permitted" (RBr5). That is, we interpret appellants' argument to be that the limitation, "the reproduced information concerning copying consent stored in the temporal store means indicates that copying once was permitted," requires that the

information positively "indicates copying once was permitted" and the absence of copying consent is not an indication.

Initially, we agree with appellants that the limitation "information concerning copying consent ... indicates that copying once was permitted" requires a positive indication, and that the absence of copying consent information does not "indicate[] that copying once was permitted." Linnartz discloses (col. 1, lines 59-65): "For digital storage media such as DCC, 'copy bits' have been defined, which bits indicate a copyright status, e.g. 'no copy allowed', 'free copy' or 'one generation of copy allowed.' Other copy bits may indicate that the medium containing the information is a 'professional' medium manufactured by pressing and is not a 'recordable' disc." Linnartz discloses an embodiment allowing one generation of copies (col. 3, lines 27-40; col. 4, line 58, to col. 5, line 2). "A professional audio stream contains embedded copy-right data that grants permission to copy once" (col. 4, lines 60-61), implemented by a watermark. The watermark is removed by the consumer recorder and a "copy made by the recorder therefore does not contain the permission mark and cannot be copied" (col. 4, line 67, to col. 5, line 2). Therefore, when the recordable medium the audio was copied to, or a medium dedicated to reproduction made from that recordable medium, is attempted to be recorded again, the situation in the claims, there is no

"information concerning copying consent"--it has been removed by the prior recording. Accordingly, the copy-once embodiment does not disclose limitation (2).

Another embodiment allows n generations of copies (col. 3, lines 41-67; col. 5, line 41, to col. 6, line 45). The system uses a copy-control ticket T attached to the content which is removable and modifiable by recorders (col. 5, lines 47-49). Ticket T is replaced by F(T) during each recording or playback operation, where F is a publicly known cryptographic one-way function (col. 6, lines 2-25). The idea is that T is a cryptographically controlled counter (col. 6, lines 26-29). The counter value is determined by comparing n-time processed control patterns (T', T'', etc.) and the watermark until a match is found (or no match is possible) (col. 3, lines 49-53). The counter is cryptographically decreased in the player before outputting the processed control pattern to a recorder (col. 3, lines 53-55). The recorder verifies the counter and, if the count permits, decreases the counter again and makes a recording including the processed control pattern, which limits the number of generations allowed (col. 3, lines 55-60). "As soon as the counter is decreased too often, the processed control pattern no longer matches the watermark. The player and recorder will then block reproducing and/or recording the information." (Col. 3, lines 64-67.) The examiner considers that the information

concerning copying consent (the processed control pattern T', T", etc.) indicates that copying once was permitted, and if the comparison does not allow copying, then copying is not permitted (EA14). Unlike the copy-once embodiment, the processed control pattern is not removed once the number of copies has been used up and, thus, it does "indicate[] that copying once was permitted" in the sense of "permitted at some indefinite time in the past." That is, if the counter has a value of zero, this indicates that copying was permitted in the past but is not now permitted. The examiner's rejection is based on the interpretation that claim 1 is an open-ended claim that does not preclude stopping outputting of data based on another condition in addition to limitations (1) and (2), in this case, determination that copying is not permitted based on a comparison of the processed control pattern to the watermark. We find that Linnartz discloses stopping outputting of data for playback and/or recording if "the reproduced information concerning copying consent ... indicates that copying once was permitted," because this information is not removed, and the comparison of the processed control pattern to the watermark indicates that copying is no longer permitted.

Appellants argue that "Linnartz essentially realizes a function of restricting a recording, whereas the present invention restricts reproduction and such differences alone patentably distinguish over Linnartz" (RBr7) and "Linnartz

provides a function of restricted recording while the present invention provides a function of restricting reproduction" (RBr8). We note that claim 1, for example, recites stopping "outputting the error correcting data" and does not say whether the data is being used for recording or playback. Nevertheless, Linnartz discloses: "As soon as the counter is decreased too often, the processed control pattern no longer matches the watermark. The player and recorder will then block reproducing and/or recording the information." (Col. 3, lines 64-67.) Linnartz discloses restricting playback and recording (col. 6, lines 33-39). Thus, Linnartz is not limited to restricting recording as argued by appellants.

Limitation (1)

With respect to limitation (1), the examiner says (EA15-16):

[O]ne can read the limitation "the data was reproduced from a medium dedicated to reproduction" as indicating not that the data was at some point in the past reproduced from a medium dedicated to reproduction, and is now on a recordable medium, but that a professional disk/"medium dedicated to reproduction" is in the reproduction apparatus now, and is being tested to determine whether outputting of the data is legitimate and proper. Be it noted that this interpretation is not only not required by Appellants' claim language, but not expressly set forth in Appellants' arguments. Even on this interpretation, however, Linnartz discloses stopping outputting of data if both (1) the data was reproduced from a medium dedicated to reproduction and (2) the reproduced information concerning copying consent indicates that copying once was permitted, since if the reproduced information concerning copying [in Linnartz] indicates that copying once was permitted (and no longer is), whether or not the data was reproduced from a medium dedicated to reproduction. Linnartz does not disclose that (1) is an

absolute requirement, i.e., that outputting of the data will not be stopped if the reproduced information concerning copying consent indicates that copying once was permitted, but the data was not reproduced from a medium dedicated to reproduction. However, this is nowhere claimed as a limitation, and Examiner has no duty to read "if" as "only if," to read in other claim language which Appellant did not use, such as "responsive to determining that the data was reproduced from the medium dedicated to reproduction," or, in the absence of file wrapper estoppel, to give the claims a narrower interpretation than the broadest reasonable interpretation.

That is, the examiner interprets the claim as broad enough to read on stopping outputting of data if copying is no longer permitted regardless of whether the data is recorded on a medium dedicated to reproduction or a recordable medium.

It does not appear that appellants appreciate the examiner's claim interpretation. We conclude that the examiner's interpretation is reasonable and find that limitation (1) is satisfied by Linnartz. None of the independent claims require "detecting" "a medium dedicated to reproduction," but merely recite that a "medium dedicated to reproduction" as a condition. If there was a step of detecting and taking an action in response to the detecting, there would be a problem in the rejection because the stopping in Linnartz is not based on detecting the type of media. However, since the type of medium is simply a condition, we agree with the examiner that the condition is met. That is, assuming a disk is recorded on a recordable medium and the counter indicating copying consent has been decremented to zero, indicating that "copying once was permitted [in the past],"

but is no longer permitted: this recordable medium cannot be played or recorded. If that disk is now made into a medium dedicated to reproduction, it also cannot be played or recorded. Claim 1 and the other independent claims do not exclude stopping the outputting if the data was reproduced from a recordable medium as well as from a medium dedicated to reproduction. This is what the examiner means by stating that "if" does not mean "only if." We have no doubt that appellants could amend the claims to overcome the rejection, but we consider the claims as they stand. Thus, we find that Linnartz meets limitation (1).

Other limitations and Suzuki

The examiner finds that Suzuki teaches demodulating data in accordance with a demodulation rule, storing demodulated data in a temporal store, and the demodulated data is error corrected with the error corrected data being stored in the temporal store, referring to column 9, lines 43-50 and Fig. 5 (FR6). The examiner concludes that it would have been obvious to one skilled in the art to provide demodulating and error-correcting means in Linnartz given the teaching in Suzuki (FR6-7).

We agree with the examiner. Suzuki teaches data demodulation and error-correction of the demodulated data. Data has to be modulated to be stored on a medium and, of course, has to be demodulated to recover the original recorded data. Error-correction code is used on recorded data so that any errors

occurring during reproduction (e.g., due to scratches on the medium) can be corrected. Linnartz probably does not disclose these features because they are so well known and because the manner of reading data from the disk is not part of the invention, but, in any case, Suzuki establishes that these features were known to those of ordinary skill in the art.

Appellants argue that Suzuki is not directed to the problem of illegal copying of the present invention or that of Linnartz and provides no disclosure of stopping the output of error-corrected data based on conditions (1) and (2) (Br11; RBr9). The examiner responds that Suzuki is not relied on for these limitations (EA18).

We agree with the examiner that Linnartz teaches limitations (1) and (2). Suzuki is relied on only to show that information recorded on a medium must be demodulated and error-corrected before it can be operated on.

Appellants argue that because Suzuki has a publication date several years before the priority date of Linnartz, Linnartz did not consider the techniques of Suzuki necessary and the examiner has engaged in hindsight reconstruction (Br12: RBr9). The examiner states that it is possible that Linnartz regarded the features of Suzuki as too obvious and well known to require explicit disclosure (EA18-19).

We agree with the examiner. It is probable that Linnartz does not describe how data is read from a medium because it was well known in the art, as evidenced by Suzuki, and because it is not part of his invention. However, what is important is that Suzuki teaches that the features were known in the art.

Conclusion

For the reasons stated above, the rejection of claims 1, 7, 13, and 14 is sustained.

Claims 2-6 and 8-12

The examiner relies on "Official Notice" for claims 2-6 and 8-12. The examiner takes Official Notice that the use of RAM (random access memory) to store data was well known and concludes that it would have been obvious for the temporal store means in Suzuki to be a RAM as recited in claim 2 (FR4). The examiner takes Official Notice that it was well known to have data processing means connected to a RAM and concludes that it would have been obvious to have the connection of demodulating means, error-correcting means, and copying consent information reproducing means in Suzuki connected to the RAM as recited in claim 3 (FR4). The examiner takes Official Notice that it was well known to use a single RAM instead of plural RAMs and concludes that it would have been obvious for the RAM to be a single RAM as recited in claim 4 to reduce the number of parts

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and to simplify the data processing (FR4-5). The examiner takes Official Notice that it was well known to integrate a number of processors and memory into a single semiconductor device (as witnessed by the terms "integrated circuit" and "computer on a chip") and concludes that it would have been obvious to provide the copying consent information reproducing means, the demodulating means, the error-correcting means, and the RAM in Suzuki on a single semiconductor device, as recited in claim 5. The examiner rejects claim 6 over Linnartz and Suzuki for the reasons stated with respect to claim 1, but finds that the combination does not teach putting the means on a single semiconductor device (FR5-7). The examiner takes Official Notice that it was well known to integrate a number of processing circuits and memory into a single semiconductor device (as witnessed by the terms "integrated circuit" and "computer on a chip") and concludes that it would have been obvious to provide the demodulating means, the temporal store means, the error-correcting means, the copying consent information reproducing means, and the reproduction stopping means in Linnartz as modified by Suzuki on a single semiconductor device (FR7). The examiner applies the same reasoning to claims 8-12, which parallel claims 2-6, but are not in means-plus-function format.

Appellants argue that "Official Notice" is no longer permitted in view of In re Lee, 277 F.3d 1338, 1345, 61 USPQ2d

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1430, 1435 (Fed. Cir. 2002) (Br7 & 13; RBr3 & 9). It is argued that it is improper for the examiner to recognize the deficiencies of the cited prior art, and contend that such features were well known and obviously could be provided (Br13). It is argued that appellants seasonably challenged the Official Notice by appealing the final rejection (RBr3-4).

A traverse of a finding of Official Notice requires more than just a statement that the fact is not in a reference. A "traverse" is "[a] formal denial of a factual allegation in the opposing party's pleading," Black's Law Dictionary (7th ed. 1999). That is, a traverse is similar to answering the factual allegations in a complaint in a civil action. Cf. Fed. R. Civ. P. 8(b) ("A party shall . . . admit or deny the averments upon which the adverse party relies. If a party is without knowledge or information sufficient to form a belief as to the truth of an averment, the party shall so state and this has the effect of a denial."). An applicant may traverse a finding of Official Notice by simply averring that "those of ordinary skill in the art were not aware of [the fact]" or that "applicant is without any knowledge or information as to whether those of ordinary skill in the art were aware of [the fact]". This avoids putting the Office to the task of proving a fact which applicant may know. In our opinion, it would be a violation of the duty of

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candor to request that the examiner produce a reference if applicant knew a finding of Official Notice to be true.

In this case, appellants have merely said that Official Notice is always improper and has not denied any of the findings of the examiner. This is not a proper traverse. While it is always easier to review a rejection where a reference has been cited, and while we do not encourage Official Notice, we disagree that Official Notice is always improper. The examiner has made straightforward findings which could easily be denied or stated that appellants were without knowledge or information sufficient to form a belief as to the truth of the finding. For example, the examiner took Official Notice that storing data in a RAM was well known in the art. Suzuki does not disclose that the sector buffer 504 and ring buffer 506 are RAMs, but appellants do not deny that RAMs were well known and have provided no reasons why it would not have been obvious for buffers to be made as RAMs. If appellants state on the record that "appellants deny (or appellants are without knowledge or information sufficient to form a belief) that storing data in a RAM was well known in the art," we will reverse the examiner's rejection on this point and the examiner will be required to find a reference. Similarly, appellants should deny or say they are without knowledge about the examiner's other findings: that it was well known to have data processing means connected to a RAM; that it was well known

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to use a single RAM instead of plural RAMs; and that it was well known to integrate a number of processors and memory into a single semiconductor device.

Appellants have not shown error in the examiner's rejection. Accordingly, the rejection of claims 2-6 and 8-12 is sustained.

CONCLUSION

The rejections of claims 1-14 are sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

Lee E. Barrett
LEE E. BARRETT
Administrative Patent Judge

~~LANCE LEONARD BARRY~~
~~Administrative Patent Judge~~

HOWARD B. BLANKENSHIP
Administrative Patent Judge

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